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# (12) United States Patent Linton

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### (54) CVT DIFFERENTIAL

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(58) Field of Classification Search

None

See application file for complete search history.

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#### (57) ABSTRACT

A CVT (continuously variable transmission) differential is provided which includes a first drive input ring gear having internal teeth. A planetary or bevel gear differential is connected to the first drive input ring gear. The planetary differential includes a planet gear carrier, first planet gears, second planet gears, a first sun gear, and a second sun gear. Alternatively, the bevel gear differential includes a carrier that supports drive and driven bevel gears. A second drive input is connected to the planet gear carrier or bevel gear carrier. Preferably, a primary drive is connected to the first drive input ring gear, which can be an internal combustion engine or an electric motor. Preferably, a secondary drive is connected to the second drive input, which is preferably an electric motor, for example for a hybrid motor vehicle.

## 12 Claims, 6 Drawing Sheets

